



SIR JOHN RICHARDSON, C.B., M.D., LL.D., F.R.S.

Photograph from a crayon drawing done about 1830 by Negelen, who also did one of
Sir John Franklin, K.C.H.

With the Writer's Compliments.

SIR JOHN RICHARDSON, C.B., M.D., LL.D., F.R.S.¹

THE NATURALIST OF THE NAVAL MEDICAL SERVICE.

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QUITE recently, fifty-nine years after his sudden death at his home of retirement, Lancrigg, Grasmere, a memorial plaque has been erected to Sir John Richardson by some of his relatives and descendants in the Parish Church of the Westmorland village, to the churchyard of which William Wordsworth's grave still draws pious pilgrims. The reproduction (fig. 1) of this simple memorial may perhaps be an excuse for recalling some details of one who, though from the lapse of years almost forgotten, was in the Naval Medical Service for forty-eight years (1807-1855), went on three Arctic expeditions, twice with and once in search of Franklin, was justly famous as a zoologist and naturalist, and during his long term of seventeen years (1838-1855) at Haslar as Physician and Medical Inspector had under him as very junior officers men, such as Thomas Henry Huxley, Sir Joseph D. Hooker, and Sir Andrew Clark, who afterwards became well known in the allied walks of science and medicine. His life² was written by the Rev. John McIlraith, Minister of the English Reformed Church at Amsterdam, who was related to him by marriage: some of the family, however, were dissatisfied with this account and indeed were said to be opposed to its publication. The copy of this work in the Haslar library has in pencil under

¹ Reprinted from the JOURNAL OF THE ROYAL NAVAL MEDICAL SERVICE, 1924, x, pp. 161-172.

² "Life of Sir John Richardson, C.B., LL.D., F.R.S." By Rev. John McIlraith. Longmans, Green and Co., 8vo, pp. xl + 280. London, 1863.

the frontispiece the rather remarkable legend, "The most wretched portrait ever beheld"; I was informed by Sir Mervyn W. Richardson-Bunbury, Bt., the Curator, that this is in the handwriting of Mr. Charles Barron, Curator (1850-84), and that his authority for this was Barron's son. This portrait (fig. 2), though different from two others (the frontispiece of this number

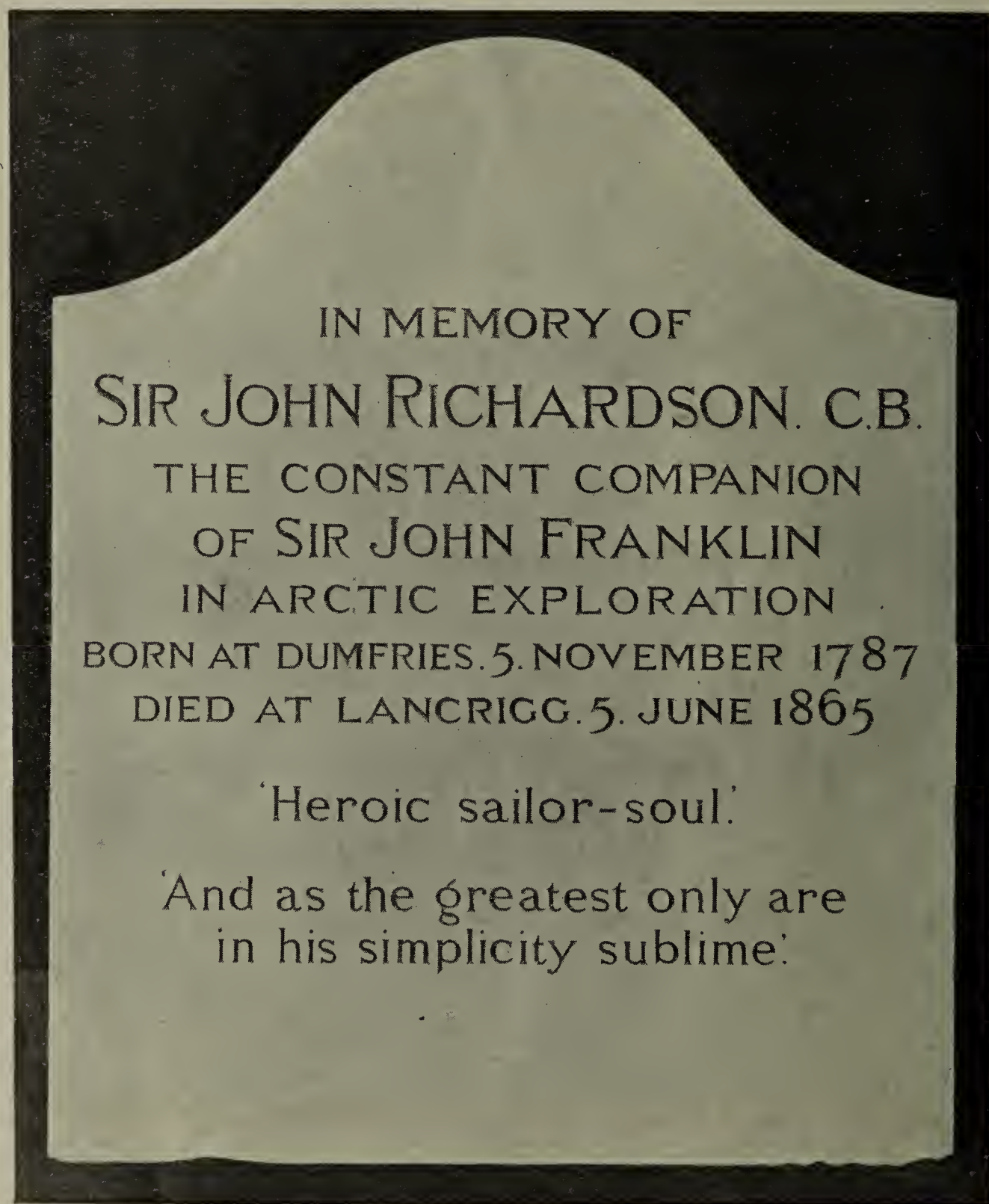


FIG. 1.—Memorial in Grasmere Church, 1924.

and fig. 3), is pleasing, even if it may not have been a good likeness. There is of course no intention here of any attempt to improve on or correct McIlraith's detailed "Life," of which indeed much use has been made.

Sir John Richardson was born at Nith Place, Dumfries, on November 5, 1787, and was the eldest of the twelve children of Anne Mundell and

Gabriel Richardson of Rosebank, Dumfries, provost of the town and a friend of the poet Burns. William Allan Richardson, the Yorkshire gardener, whose name is more often on our lips than that of the other twelve John Richardsons in the "Dictionary of National Biography," was not a relation. John Richardson's laborious habit of life started early, for at the age of four years he could read well, and on November 3, 1800, he was apprenticed for three years to his uncle, James Mundell, a surgeon in Dumfries, who, however, died a year later; although this apprenticeship was continued with his successor, Mr. Samuel Shortridge, an arrangement

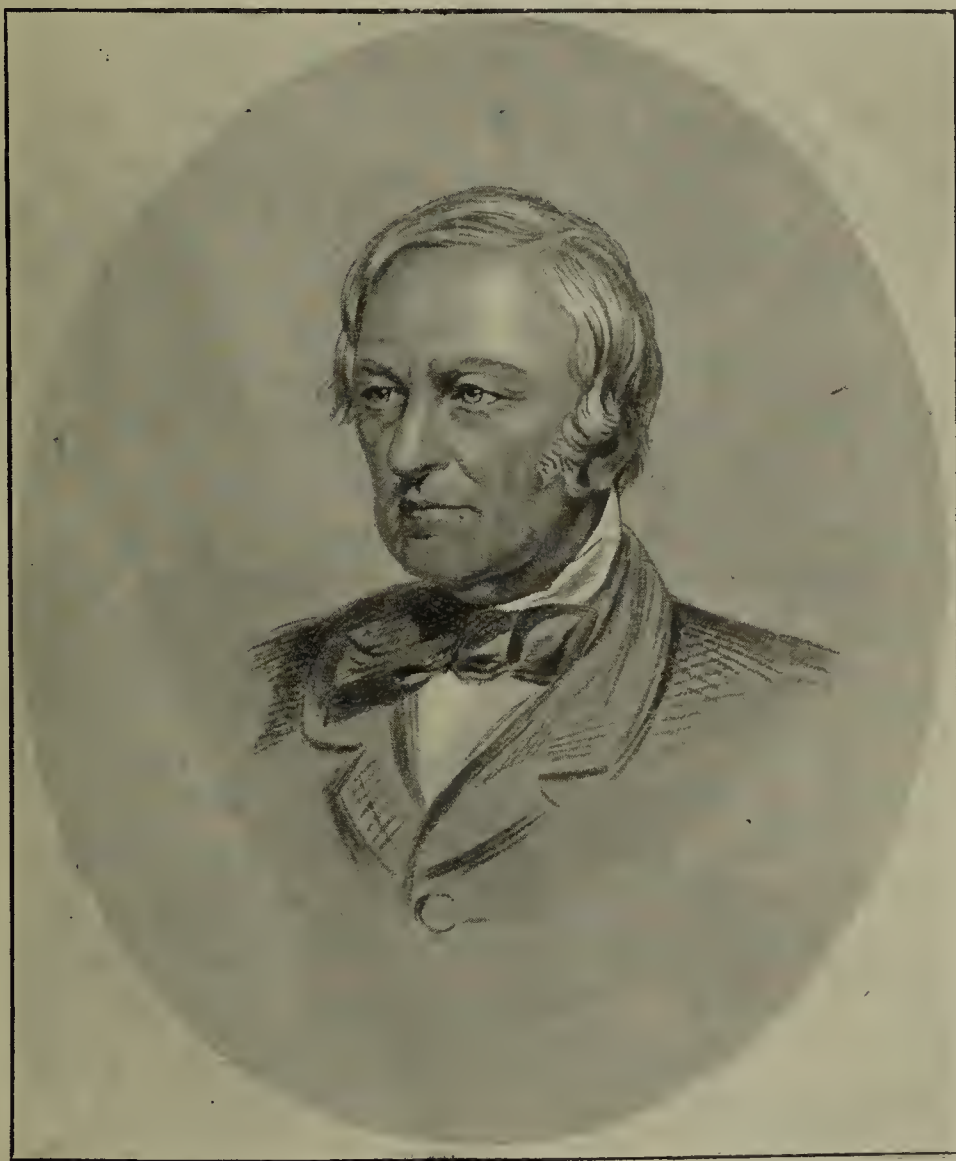


FIG. 2.—Sir John Richardson, C.B., M.D., F.R.S. Being the Frontispiece in Rev. John McIlraith's "Life." Date unknown.

was made whereby Richardson went at the tender age of fourteen as a medical student to Edinburgh University. In 1804 he became house surgeon at the Dumfries and Galloway Hospital, and two years later returned to Edinburgh. In February, 1807, he qualified as a member of the College of Surgeons of England, and was gazetted an assistant surgeon in the Royal Navy. John Harness, who had been appointed a Medical Commissioner of the Navy in 1800 and succeeded Sir Gilbert Blane as the Senior Commissioner in 1802, seems to have treated him with somewhat scant courtesy at the first interview, but to have proved much more forth-

coming at the second after the receipt of a note from Captain (later Vice-Admiral Sir) William J. Hope, a Lord of the Admiralty, requesting that Richardson should be sent to a frigate. Accordingly he went to the *Nymph*, and during the next three years in that ship and successively in the *Hibernia*, the *Hercule*, and the sloop *Blossom*, saw a good deal of active service against the French, being in the *Bombay* at the blockade of Toulon. In 1812 he got leave for a few months to work at anatomy in London, and after a year as surgeon in the *Cruiser* in the Baltic Fleet, his last term of service afloat, he went in February, 1814, to Canada and Bermuda as surgeon to the 1st Battalion of the Royal Marines. With the advent of general peace after the battle of Waterloo he was placed on half pay. During his service afloat he had anxiously considered if and when he could retire in order to take up civil practice, but wisely decided to get a higher qualification first. Accordingly he spent the next few years at work in Edinburgh, obtaining his M.D. degree with a thesis *De Febre flava* in 1817, and after setting up in practice in Leith, married on June 1, 1818, Mary, second daughter of William Stiven of Leith. In common with general experience, the demands of private practice were not overwhelming at first, but the Rev. John McIlraith in the "Life" already mentioned has "no doubt that this failure was permitted by the Supreme Ruler, to lead him into the sphere for which he had been unconsciously preparing, and the duties of which from his well-knit frame, habits of life, and mental qualities, he was admirably fitted to fulfil." This refers to a letter of March 26, 1819, from the Secretary of the Admiralty offering him the post of Surgeon and Naturalist to Lieutenant John Franklin's Northern Expedition to survey the land from Hudson's Bay to the mouth of the Coppermine River, Richardson being directed to collect and preserve specimens of minerals, plants, and animals. This resulted in his sailing from Gravesend on May 23, 1819, and after a tedious voyage arriving to find the Hudson's Bay Company and the West Fur Company engaged in actual warfare. The expedition eventually covered 5,550 miles by land and water in America and entailed great privations; starvation was imminent at one time, when Richardson had in self-defence to shoot the Iroquois voyageur Michel who had already murdered a midshipman, Robert Hood, and probably another of the party, apparently with cannibalistic intent.

October, 1822, saw Richardson back in London where he was busy with the report of the expedition; in the following year he was in Edinburgh and began the description of the mammals and birds collected by Captain (afterwards Sir) W. E. Parry on his second voyage in search of the North-West Passage (1821-23). Parry was afterwards Richardson's colleague and friend as Captain at Haslar, and has the additional interest for us of being the son of "the distinguished old Bath physician" Cabel Hillier Parry who first described exophthalmic goitre, which Osler called Parry's disease, thus adding another, about the seventh, to its numerous synonyms. The elder

Parry also, like Edward Jenner, did much to establish the association of disease of the coronary arteries with angina pectoris. In April, 1824, Lord Melville appointed Richardson Surgeon to the Chatham Division of Marines with the volunteered permission to go on a further expedition under Franklin to survey the coast between the Mackenzie and Coppermine Rivers. This expedition started on February 12, 1825, and much care was taken to prevent the shortage of stores which had so nearly proved fatal on the former occasion. After an absence of more than two and a half years, Richardson reached England on September 26, 1827, with a successful collection of fauna and flora, and in the following year returned to Chatham as Chief Medical Officer to the then recently erected Melville Hospital which received its first patients on June 29, 1828. This hospital was named after the second Viscount Melville who was First Lord of the Admiralty for the unusually long term of fifteen years, during which time he took a special interest in the arctic expeditions, an interest acknowledged by Melville Sound being named after him. The Melville Hospital was superseded by the present hospital at Gillingham, opened by King Edward VII on July 26, 1905.

His spare time was now devoted to the great work "*Fauna Boreali-Americana, or the Zoology of the Northern Parts of British America, containing Descriptions of the Objects of Natural History collected in the late Northern Land Expeditions under the command of Captain Sir John Franklin, R.N.,*" in four volumes. This well-illustrated monograph was published under the authority of the Right Hon. the Secretary of State for the Colonies, and contained sections dealing with quadrupeds and fish by Richardson, birds by him and William Swainson, plants by Professor Sir William J. Hooker of Glasgow, and insects by William Kirby. The first volume was published in 1829 by John Murray, and the last in 1837. In the meanwhile his wife having died in December, 1831, he married in January, 1833, Mary, only daughter of John Booth, and niece of Sir John Franklin. In 1832, cholera, which had invaded Russia in 1830, reached England, and Chatham shared to the full in this great epidemic; Richardson was so constantly in the wards at this anxious time that he was supposed by the medical officers and nurses never to go to bed. Sir Gilbert Blane who, like Richardson and Sir William Burnett, was a Naval Scot, and incidentally was from his frigid manner nicknamed "*Chilblain*,"¹ had in 1831 issued "*A Warning and Admonition to the British Public on the Subject of Indian Cholera*" pointing out, what would now seem unnecessary, that it was communicable by human intercourse and not, as many then thought, caused by aerial influence; this pamphlet was widely circulated by the Postmaster General, the Duke of Richmond, to the seaports, especially on the east coast; but popular prejudice prevailed and as the result of neglect of precautions

¹ *Journal of the Hon. Henry Edward Fox (Fourth and last Lord Holland), 1818-1830. Edited by the Earl of Ilchester, p. 53, 1924.*

at Sunderland cholera spread from this port of entry into the country, unfortunately carrying off Lady Blane as one of its earliest victims. This epidemic of cholera was followed in 1833 by one of influenza, and their effect on the population was afterwards thought to have been a change from the "sthenic" type of fever and inflammation, which had been benefited by bleeding, to the "asthenic" in which venesection was not well borne; in later years Markham¹ vigorously attacked the suggestion that this change of type in disease had thus taken place, and argued that it was an idea subsequently invented to explain the change of fashion in medical treatment, in fact that there had been an alteration of the medical mind rather than of the patients' constitutions or diseases.

In 1838, Sir William Burnett who was head, under various titles, of the Medical Department of the Admiralty for thirty-four years (1821-55), and was a contemporary of Sir James McGrigor, the Director General of the Army Medical Department for thirty-six years, appointed Richardson physician at Haslar with the complimentary wish "that the appointment will be agreeable to yourself, as I am sure it will be beneficial to the service." At that time Haslar and Plymouth Naval Hospitals were, like ships, under the direction of an Executive Officer and two old lieutenants, with the result that friction was frequent between the executive and the medical officers, especially at Haslar. Richardson's first Captain-Superintendent, by name Carter, was a bully and a difficult man to get on with; though his yoke must have been galling, Richardson, who was promoted Medical Inspector of Hospitals and Fleets on August 22, 1840, and was knighted on February 11, 1846, for his services as an arctic explorer and naturalist, bided his time until April, 1846, when he wrote to the Medical Director-General pointing out the drawbacks of a Captain-Superintendent at Haslar and the necessity of vesting the entire control, as at the Melville and other naval hospitals, in the Chief Medical Officer. The result was eminently satisfactory, for though the post of Captain-Superintendent was not abolished until 1870, a most congenial appointment was made, Sir Edward Parry the arctic explorer, being sent down on December 2, 1846, to succeed Captain Carter.

On taking up his duties at Haslar Richardson must have realized that he was not so independent as at Chatham, but this appears to have made little, if any, difference in his activities for good. No time was lost in advocating the more humane treatment of lunatics practised since 1793 by Pinel in France, introduced into England by the Tukes at the Retreat, York, and later practised with success by John Conolly, whose methods at Hanwell were studied by Richardson. Several letters recommending this form of treatment fell on deaf ears at the Admiralty until Richardson astutely urged that not only was it more efficient but much cheaper; whether *post*

¹ Markham, W. O. "Bleeding and Change in Type of Disease." The Goulstonian Lectures *Brit. Med. Journ.*, 1864, vol. i, p. 359 *et seq.*

or *propter hoc*, Sir William Burnett in 1839 approved the adoption of Conolly's methods and, to carry them into effect, sent Dr. James Anderson to Haslar in the place of a medical officer too firmly rooted in the old methods of rigorously treating the insane. In his "Visit to Haslar, 1916," the late Major-General J. B. Richardson¹ described his recollections of Haslar in his father's time and of what went on in the grounds of the lunatic asylum adjacent to the physician's residence (Number 2, the Residences). The

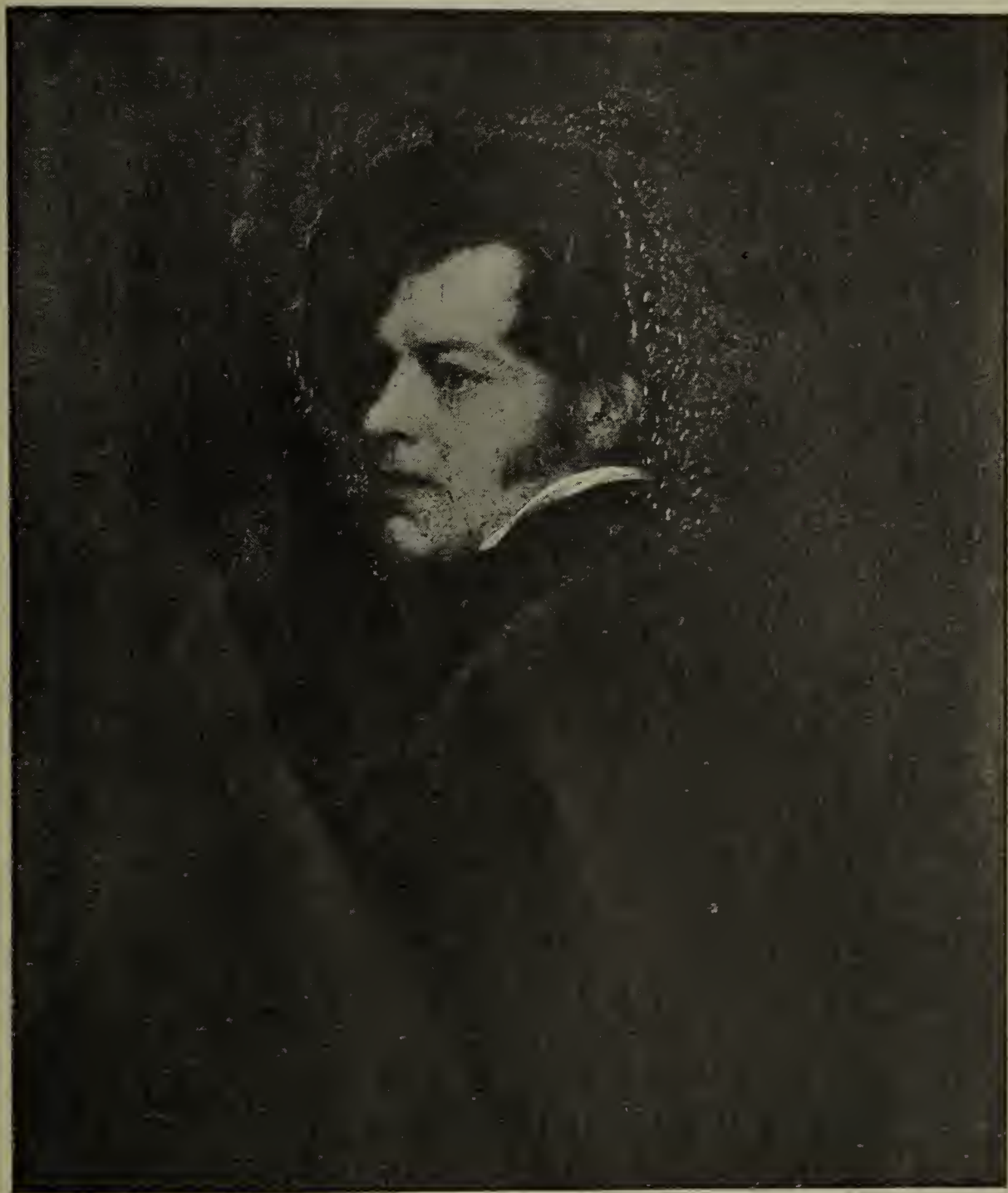


FIG. 3.—Photograph of a portrait of Sir John Richardson, by Thomas Phillips, R.A., showing the recent "halo." This was reproduced in the Narrative of Franklin's Expedition, 1822.

museum at Haslar, which was founded in 1822 by Sir William Burnett and received the pathological collection from the Melville Hospital in 1835, was much enriched and expanded by Richardson who was anxious to make it representative of comparative anatomy. His portrait (fig. 3) by Thomas Phillips, R.A., which now appropriately hangs as the presiding *genius loci*

¹ Richardson, J. B., JOURNAL OF THE ROYAL NAVAL MEDICAL SERVICE, 1916, ii, pp. 329-339.

Sir John Richardson, C.B., M.D., LL.D., F.R.S.

in the big room with a gallery added in 1850, was originally in the Medical Mess, but the heat there brought out the lines of an underlying head on the canvas, producing an effect somewhat like a halo, and thus acting like the more modern application of x rays in detecting hidden portraits¹; it was therefore moved to the museum about twenty years ago. In 1912 some 300 pathological specimens, including all those of dysentery, were transferred from Haslar to the Medical School at Greenwich, and in January, 1914, in accordance with the request of the authorities of the British Museum, Sir John Richardson's geological specimens from the arctic regions were sent to South Kensington for comparison with the antarctic collection.

With his reputation as a zoologist and field naturalist and his position at Haslar, Richardson was naturally consulted about vacancies, and, being a good judge of character, was well placed to recommend men suitable for appointments with opportunities for independent research. Before starting as botanist in Sir James Clarke Ross' antarctic expedition of 1839 the recently qualified Dr. (later Sir) Joseph D. Hooker worked under him in the wards at Haslar, and has left a thumb-nail sketch of his chief's few but effective words in interrogating patients. Another promising pupil was Dr. William Balfour Baikie, the explorer of the Niger who prematurely succumbed to fever in 1864. Huxley was for a time a naval surgeon and also described the taciturn "old John," as he was irreverently called, who without taking any obvious notice of his young staff was carefully watching them with a view to their future. Thus, after being recommended for other posts, Huxley was enabled to go as assistant surgeon and naturalist in the *Rattlesnake* under Captain Owen Stanley, a brother of A. P. Stanley the famous Dean of Westminster Abbey, on the survey of the sea between Australia and the Great Barrier Reef during the years 1847-50. On his return he obtained by Richardson's help an appointment in a ship at Woolwich with time to prepare his collected material for publication, and did not leave the Service until 1854. He dedicated his "Oceanic Hydrozoa" (1859) to the "Founder of my Fortunes," Sir John Richardson, gracefully acknowledging his debt for this start in his scientific life. During the seven months in 1846 that Huxley was at Haslar, Andrew Clark, subsequently President of the Royal College of Physicians and of the Royal Medical and Chirurgical Society of London, and his "kindest of doctors," appeared on the scene as an assistant surgeon, entering on September 1, and, except for a voyage to Madeira as a remedy for pulmonary tuberculosis in 1847, remaining there till 1853, when Richardson, who had a high opinion of his ability, advised him to apply for the Curatorship of the Museum at the London Hospital and to specialize in diseases of the lungs and heart. Haslar did much for this future head of the medical profession in London, for not only had he opportunities of learning to teach and of much pathological work, but it allowed him time to mature, so that from

¹ *Vide* Kaye, G. W. C. "X-Rays," pp. 186-189, fourth edition, 1923.

being shy and diffident he became the confident, brilliant, vivacious, and oratorical physician as the Metropolis knew him. Among Huxley's contemporaries at Haslar there were also two future Directors-General of the Medical Service of the Navy—Sir Alexander Armstrong and Sir John Watt-Reid.

On August 4, 1847, two and a half years after the death of his second wife, he married at Grasmere, Mary, daughter of Mrs. Archibald Fletcher, who, having passed her married life in Edinburgh in the highly literary society of Brougham, Jeffrey, Cockburn, Thomas Brown (the successor of Dugald Stewart, Professor of Moral Philosophy), Henry Mackenzie ("The Man of Feeling") and other Edinburgh Reviewers, had settled down in 1841 at Lancrigg, Grasmere, Westmorland, where she was on friendly terms with the Lake School—the Wordsworths, Southey, Coleridges, the Arnolds of Rugby, and others. She was a beautiful and intellectual woman, who has been sketched in "George Paston's" (Miss E. M. Symonds) "Sidelights on the Georgian Period" (1902), as an "English Madame Roland"—a comparison previously made by Brougham in his introduction to his speeches on Borough Reform—and whose autobiography (1874) was brought out by her daughter Mary for private circulation. She was 21 years old when she married Archibald Fletcher, aged 47, and her daughter Mary was 45 years old at the time of her marriage to Sir John Richardson who was in his sixtieth year. The mother and daughter thus both appeared to have attracted and to have preferred middle-aged or elderly men; but another daughter, Margaret, was only ten years younger than her husband, John Davy (1790-1868), who was the brother and biographer of Sir Humphry Davy, and afterwards Inspector-General of Army Hospitals; the two sisters thus resembled each other in marrying Inspectors-General in the Medical Services of the Navy and Army, who were both distinguished biologists and Fellows of the Royal Society. From 1835-1838 the two families were friendly neighbours, one at the Melville Hospital, the other at Fort Pitt, Chatham. It is a curious coincidence that Richardson's three wives all had the same Christian name—Mary.

During his honeymoon Sir John Richardson visited Pastor Fliedner's Institution for the training of nurses at Kaiserwerth near Düsseldorf in order to gain ideas for the improvement of the nursing at Haslar. We are perhaps too much inclined to date all attempts to reform sick-nursing from Florence Nightingale's work in the Crimean War; but in justice it should be recognized that efforts had been made before that time, for example Sir Edward Sieveking who also visited the Kaiserwerth Institute and in 1849 wrote a pamphlet on "The Training Institutions for Nurses and the Work-houses." Sir John Richardson was dissatisfied with the nurses at Haslar, who were said to be "Betsy Prigs" and often washerwomen; his opinions indeed coincided with those of Florence Nightingale, who in conversation with him on December 3, 1856, after his retirement, said that she gathered that the arrangements in the Navy were nearly as bad as in the Army, and

that "both were branches of the circumlocution office, as there was the same difficulty in introducing the improvements of science on account of the number of channels through which every suggestion must pass, the weary Treasury being at the root of all the evil."

On March 20, 1848, within seven months of his marriage, he left Haslar to go in search of Sir John Franklin's expedition, which had left England on May 19, 1845, with, it was supposed, provisions sufficient for three years. Huxley wrote, "My old chief Richardson is a man of men, but troubles himself little with anything but detail zoology. What think you of his getting married for the third time just before his last expedition? I hardly know by which step he approved himself the bolder man." It is perhaps interesting to mention that Dr. E. A. Wilson, who also was a zoologist as well as a medical man, married about a week before he started on Captain Robert T. Scott's first antarctic expedition (1901-1904) in the *Discovery*. Sir John Richardson, on becoming engaged to be married, had honestly stated that unless news about the third Franklin expedition with the *Erebus* and *Terror*, which had not been heard of since July 12, 1845, reached the Admiralty in the autumn of 1847, or the expedition returned, he had promised to go out in search in the spring of 1848. As no such news was received, "the Commissioners for Executing the Office of Lord High Admiral, &c." gave him, on March 16, 1848, instructions for an overland expedition in search of the *Erebus* and *Terror*; and on March 25 he left Liverpool as leader of the expedition with Dr. John Rae, a chief trader of the Hudson's Bay Company, as second in command. In the Navy List for 1849 Richardson's name does not appear as attached to Haslar, Dr. John Wilson, Medical Inspector of Hospitals and Fleets, having acted for him from February 28, 1848. Richardson and Rae did not succeed in finding the ships, indeed it was not until 1859 that the tenth search party,¹ under Captain Leopold McClintock, found final proof of Sir John Franklin's death, though in 1854 Rae was awarded the £10,000 offered by the Government for decisive evidence of the fate of the expedition. Richardson returned to England in November, 1849, and on January 16, 1850, received the thanks of the Lords of the Admiralty, being made C.B. Military Division on August 17, at the same time that Sir William Burnett and Sir James McGrigor were made K.C.B. In 1851 Richardson published "An Arctic Searching Expedition: a Journal of a Boat Voyage through Rupert's Land and the Arctic Sea in Search of the Discovery Ships under the Command of Sir John Franklin; with an Appendix on the Physical Geography of North America," in two octavo volumes, the first of which contains

¹ Lieut.-Commander W. M. Kerr, United States Navy, has recently (*Ann. Med. History*, New York, 1924, vol. vi, pp. 71-125) given a full and interesting account of Elisha Kent Kane (1820-1857), Surgeon, United States Navy, who went on the two Henry Grinnell Expeditions (1850-1851; 1853-1855) in search of Sir John Franklin, and may therefore be compared with Sir John Richardson.

some striking coloured illustrations of Kutchin and other North American Indians.

Richardson was devoted to hard work and expected the same from others, but his system of completing the ward visits before breakfast was hardly likely to arouse enthusiasm among naval surgeons of that, or indeed of any other, period ; no doubt he thus secured some hours for his zoological work which he carried on in an empty ward near his house. In his official relations he was a reserved man of few words, not of the hail-fellow-well-met fraternity ; but though he might appear churlish to his assistants, whom he seldom encouraged by conversation, he was, in Huxley's words, "in truth one of the kindest-hearted and most considerate of men." Extremely modest, he was so anxious to establish the truth that he was almost meticulous in verifying his data, and was untiring in discharging his duties. Though he does not appear to have published anything on purely medical subjects, he was keenly interested in improving the conditions in the hospitals as is shown by his visit to Pastor Fliedner's Institute for Nursing at Kaiserwerth, and by his action in regard to the more humane treatment of the insane. The "Letter Books" at Haslar prove that he was an able administrator with powers of initiative and decision ; a letter written in June, 1855, just before his retirement, on "Some Sanitary Questions connected with Haslar Hospital," bears witness to his observant interest in hygiene ; in it he complained that the state of the drains gave rise to "a gastro-enteric fever" ; to this he had previously directed attention, but probably on account of the great expense entailed by an exhaustive alteration of the drainage no effectual remedy had been applied, the extremely primitive method of sending two men once a fortnight up the drains to rake out the night-soil being still employed. He also pointed out that the increasing population of Alverstoke led to increased drainage into Haslar Lake, and a rapidly increasing accumulation of very putrid mud which was left exposed to the air at ebb-tide, and would eventually lead to deterioration of the climate of Haslar.

In March, 1855, Sir William Burnett, then 76 years of age, retired from the post of Medical Director-General, and Sir John Richardson put in an application in the usual terms to the First Lord of the Admiralty, Sir Charles Wood ; but after some delay he was passed over, on the ground that he was 67 years of age, in favour of Sir John Liddell, who was 61 years old and occupied the chair for nine years. Accordingly he resigned, but, though he retired to Lancrigg, Grasmere, continued to be extremely active for the remaining ten years of his life in scientific literary work. Among his articles were a biographical sketch of Sir John Franklin, K.C.H., the discoverer of the North-West Passage, one on Ichthyology (1857), on which he had become a leading authority, and on the Polar Regions (1859) in the "Encyclopædia Britannica." In 1859 he brought out a third edition of William Yarrell's "History of British Fishes," with a memoir of the author, and in 1860 a second supplement to the first and second editions of this

work. Not content with the wide range of his writings on the structure of the fauna and geology of the world, he took up philology, and contributed to the Philological Society's Dictionary, published by the Oxford University Press, a complete index of words used by Robert Burns, with their significance and cognates in Norse, Icelandic, or Gaelic, as far as he could ascertain them, as well as reading for this dictionary the oldest editions of Blind Harry's "Wallace" and Gawain Doyle's Virgil. It would take up too much space to give a list of all Richardson's reports on the zoological material brought to this country by surveying ships and expeditions other than those on which he went; indeed, after what has been said it should be unnecessary to insist further on his wonderful power of work and sustained application.

Numerous honours rightly came to him, such as LL.D. Dublin (1857), honorary memberships of many foreign societies, and member of the Athenæum under Rule II (1844); but probably the one he valued most was the award in 1856 of one of the Royal Medals of the Royal Society, of which he had been a Fellow since 1825, for his labours in zoology, geology, physical geography, and meteorology. His end was happy, absolutely sudden in apparently good health, without any obvious pain, in his peaceful home at the end of a pleasant summer day, on June 5, 1865, in his 78th year. The only occasion on which any cardiac affection is mentioned is as far back as 1846, when he was stated by Dr. James Anderson of Haslar to have had "spasm of the heart." It is of course possible that being a very silent man he may have had anginoid attacks in later life without saying anything about them, but he went through the strenuous expedition in search of Franklin after he was said to have spasm of the heart.